MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 2, 2021/2022

BAC3684 – SECURITY INVESTMENTS AND PORTFOLIO MANAGEMENT

(All Sections/Groups)

28 APRIL 2022
09.00 a.m – 12.00 p.m
(3 Hours)

INSTRUCTIONS TO STUDENT

1. This question paper consists of 3 pages with 4 questions only.

2. Attempt **ALL** questions. All questions carry equal marks and the distribution of the marks for each question is given.

3. Please write all your answers in the Answer Booklet provided.

QUESTION 1

Simon Chong is considering investing his money in two companies' shares. After receiving advice from his broker, Amanda Chin, he shortlists two shares, Stock ASTRO and Stock TM, as possible share investments. Amanda Chin has provided the following data for him. He is looking for you to:

Show all your working steps.

State of Economy	Probability of Occurrence	Rate of Return Stock ASTRO (%)	Rate of Return Stock TM (%)
Boom	0.20	15	25
Normal	0.50	8	14
Recession	0.30	9	-15

Required:

i. Compute the expected return and standard deviation of each share.

(10 marks)

ii. Calculate the covariance and correlation between the two shares.

(5 marks)

iii. Compute the expected return and standard deviation of a portfolio consisting of 45,000 shares of ASTRO, currently selling at RM2 each, and 95,000 shares of TM, currently selling at RM3.50 each.

(7 marks)

iv. Simon Chong is a risk-averse investor and could invest his money in either Stock ASTRO or Stock TM only, or even the portfolio in part (iii) above. Which alternative should Simon Chong choose? Justify your answer.

(3 marks)

(Total: 25 marks)

QUESTION 2

A. YTL Berhad just paid an annual dividend of RM1.50. Harry expects the dividends of YTL Berhad to grow at 12% for the next four years and at 7% thereafter. The beta of YTL is 1.25 and Harry considers the market risk premium to be 4.2%. A five-year, zero-coupon Treasury bond is yielding 4.01%. What value should Harry place on the stock?

Show all your working steps.

(15 marks)

B. Information is the key to the determination of stock prices and, therefore, is the central issue of the efficient market concept.

Continued …

Describe the **FIVE (5)** portfolio management activities of a portfolio manager who believes that the market is efficient.

(10 marks)

(Total: 25 marks)

QUESTION 3

A. The capital structure of MAID Company is as follows:

Long-term debt	RM 400 million
Common stock, RM1 par	RM 50 million
Contributed capital in excess of par	RM 250 million
Retained earnings	RM 600 million
Total	RM 1,300 million

The company has decided to raise additional capital by selling RM100 million of 8% debentures with warrants attached. Each RM1000 debenture will have 40 warrants attached, and each warrant will entitle the holder to purchase one share of common stock at RM20. Assume that no other changes in the capital structure occur between now and the time the warrants are exercised. Determine how much total capital the company will raise as a result of the issuance of debentures with warrants attached (after exercise of the warrants).

(10 marks)

B. The COCO Company has decided to sell additional common stock through a rights offering. The company has 12 million shares outstanding and plans to sell an additional 1.5 million shares through a rights offering. Each shareholder will receive one right for each share currently held, and thus each right will entitle shareholders to purchase 0.125 shares. The COCO common stock is currently selling at RM50 per share, and the subscription price of the rights will be RM45 per share. Determine the theoretical value of the rights for the ex-rights case.

(5 marks)

C. LING Holdings plans to sell 60,000 units, each unit consisting of a RM1,000 debenture and 15, 7-year warrants. Each warrant allows the holder to purchase one common-share at RM30. If the stock price goes to RM38 and all warrants were exercised, what is the total capital raised by LING?

(10 marks)

(Total: 25 marks)

Continued …

QUESTION 4

A. During the past 7 years, Lip's earnings have grown from RM0.78 to RM1.95 per share. If the past growth rates are expected to continue into the future, what is the current value of Lip's common stock to an investor who requires a 16% rate of return?

(5 marks)

B. What is the market value of a zero coupon bond with 5 years to maturity? The bond was originally sold with a yield to maturity equal to 11 percent, but the market rate today is 9 percent.

(5 marks)

C. Suppose someone decides to use puts to acquire stock. Would he or she normally use in-the-money or out-of-the money put options?

(5 marks)

D. Suppose you simultaneously buy 400 shares of TAB at 70 and write two APR 70 puts at RM2.50. What is your gain or loss if, at option expiration, the common stock of TAB sells for RM77.38?

(10 marks)

(Total: 25 marks)

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